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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,129	02/26/2002	Akira Mashimo	WC-01-11-03.00	5391

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EXAMINER

GIESY, ADAM

ART UNIT	PAPER NUMBER
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2651

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/082,129

Applicant(s)

MASHIMO, AKIRA

Examiner

Adam R. Giesy

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 11 is/are rejected.
- 7) ☒ Claim(s) 7-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/26/2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figures 7 and 8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 11 is objected to because of the following informalities:

Examiner suggests that the text "...a recordable optical disk having a wobbled;" on line 13 of page 26 should read "...a recordable optical disk having a wobbled **track**;"

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-6 are rejected under 35 U.S.C. 102(a) as being anticipated by Yukihiisa (JP Doc. No. 2001-110056, see the electronic translation).

Regarding claim 1, Yukihiisa discloses an optical disk device (drawing 1) comprising: irradiating means for irradiating a light beam (elements 3 and 11) onto a recordable optical disk having a wobbled track (1); light receiving means for receiving the light reflected from the optical disk and generating an electrical signal corresponding to the reflected light (3); and wobble signal reproducing means for reproducing, from the electric signal generated by the light receiving means, a wobble signal corresponding to a wobble of a track, wherein said wobble signal reproducing means reproduces the wobble signal (see paragraph 0013) within a period of irradiation of the light beam with a recording power ('recording power' is described in this publication as 'power-on period' - see paragraph 0017).

Regarding claim 2, Yukihiisa discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above, and further that the said wobble signal reproducing means reproduces said wobble signal within the period of irradiation of the light beam with recording power, and also within a period where the reflected light is in a stable condition at a predetermined level after a pit is formed on the optical disk ('stable condition' is described as 'period ST' in this publication - see paragraph 0016).

Regarding claim 3, Yukihiisa discloses all of the limitations of claim 1 as discussed in the claim 1 rejection above, and further that the said wobble signal reproducing means further reproduces the wobble signal within the period of irradiation of the light beam with reproducing power ('reproducing power' is described in this publication as 'lead section' - see paragraph 0017).

Regarding claim 4, Yukihiisa discloses all of the limitations of claim 2 as discussed in the claim 2 rejection above, and further that the said wobble signal reproducing means further

reproduces the wobble signal within the period of irradiation of the light beam with reproducing power ('reproducing power' is described in this publication as 'lead section' - see paragraph 0017).

Regarding claim 5, Yukihiisa discloses an optical disk device (drawing 1) comprising: a light source that irradiates a light beam of recording power and a light beam of reproduction power alternately (element 3) onto a recordable optical disk having a wobbled track (1); a photodetector having two light receiving surfaces divided in a radial direction of the optical disk, said photodetector receiving, on the two light receiving surfaces, the light reflected from the optical disk and generating a first and second output signal, respectively (drawing 5, element 101); sample-hold circuits that sample and hold the first and second output signals, respectively, during a period of the light beam of recording power (elements 102a-d); and a differentiator (105) that determines a difference between two signals from the said sample-hold circuits, wherein said wobble signal is reproduced on the basis of an output of the differentiator (see labeled differentiator output on drawing 5).

Regarding claim 6, Yukihiisa discloses all of the limitations of claim 5 as discussed in the claim 5 rejection above, and further that the sample-hold circuits, within the period of the light beam of recording power, sample the first and second output signals at the timing delayed by a predetermined period of time after the start of recording (see "delaying only a fixed time amount D2" of paragraph 0017).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2651

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yukihiisa (JP Doc. No. 2001-110056) in view of Ogawa et al. (Ogawa US Pat. No. 5,459,706).

Regarding claim 11, Yukihiisa discloses an optical disk device (drawing 1) comprising: a light source that irradiates a light beam of recording power and a light beam of reproduction power alternately (element 3) onto a recordable optical disk having a wobbled track (1); a photodetector having two light receiving surfaces divided in a radial direction of the optical disk, said photodetector receiving, on the two light receiving surfaces, the light reflected from the optical disk and generating a first and second output signal, respectively (drawing 5, element 101); a differentiator (105) that determines a difference between two signals from the sample-and-hold circuits (102a-d), wherein said wobble signal is reproduced on the basis of an output of the differentiator (see labeled differentiator output on drawing 5). Yukihiisa does not disclose amplifiers that amplify the first and second output signals during a period of the light beam of recording power to a period of the light beam of reproduction power, respectively, at different amplification factors corresponding to the recording power and the reproduction power.

Ogawa discloses amplifiers that amplify the first and second output signals during a period of the light beam of recording power to a period of the light beam of reproduction power (Figure 1, elements 8 and 9 automatically adjust amplification dependent on a sum signal output from element 7 that would adjust based on the relative light beam reflection levels during reproduction and recording).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use signal reproducing means as disclosed by Yukihiisa with the amplifiers as disclosed by Ogawa, the motivation being to detect a wobble signal that was written into a track of an optical disk during high speed recording.

Allowable Subject Matter

7. Claims 7-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 7 is allowable of prior art of record as it does not disclose or suggest all of the limitations of claim 5, as well as the further limitations that **second sample-hold circuits sample and hold the first and second outputs signals during a period of the light beam of reproduction power; a second differentiator that determines a difference between two signals from said second sample-hold circuits; and an adder that adds the output of said differentiator and an output of said second differentiator, wherein the wobble signal is reproduced from an output of the adder.**

Claim 8 depends from the objected to claim 7 and is therefore also considered to contain allowable subject matter.

Claim 9 is allowable of prior art of record as it does not disclose or suggest all of the limitations of claim 6, as well as the further limitations that **second sample-hold circuits sample and hold the first and second outputs signals during a period of the light beam of reproduction power; a second differentiator that determines a difference between two signals from said second sample-hold circuits; and an adder that adds the output of said**

differentiator and an output of said second differentiator, wherein the wobble signal is reproduced from an output of the adder.

Claim 10 depends from the objected to claim 9 and is therefore also considered to contain allowable subject matter.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

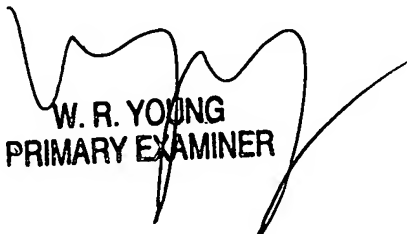
a. Takeda et al. (US Pat. No. 6,614,745 B1) discloses an optical recording medium and apparatus that utilize and reproduce the wobble signal.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam R. Giesy whose telephone number is (571) 272-7555. The examiner can normally be reached on 8:00am- 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ARG 3/7/2005


W. R. YOUNG
PRIMARY EXAMINER